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(71) Applicant: **FUJI ELECTRIC CO LTD**

(72) Inventor:
ZUKERAN AKIO
TAKAHASHI TAKEO
TAKAMATSU TAKESHI
WADA AKIRA
KAWAKAMI KAZUMI
NAKAYAMA TSUTOMU

(54) **AIR CLEANING DEVICE**

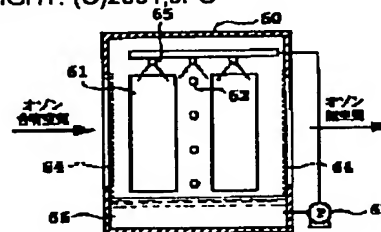
cleaning machine.

(57) Abstract

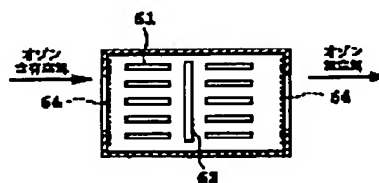
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PROBLEM TO BE SOLVED: To discharge clean air from which smoke particles are removed and the harmful gas such as NO_x and gaseous O₃ are removed and also containing no ozone.

SOLUTION: In this air cleaning device, an active oxygen atom, an oxygen molecule and an OH radical are formed in the space in a casing 60 by irradiating the photocatalytic membrane of each photocatalytic plate 61 with the ultraviolet rays from an ultraviolet lamp 62. The ozone is converted to the harmless oxygen molecule by allowing these to react with the ozone in the ozone-containing air flowed into the casing and from which the smoke particles are removed by passing an electrifying part and a dust collecting part and the harmful gas such as NO_x is removed. Therefore, the purified gas from which the smoke particles are removed, the harmful gas such as NO_x is removed and containing no ozone is discharged at a flowout side of an air



(A)



(B)